

PATENT

App. Ser. No.: 10/037,595

Atty. Dkt. No. ROC920010193US3

PS Ref. No.: IBMK10195

IN THE CLAIMS:

Please amend the claims as follows:

1. (Previously Presented) A method of processing messages in a computer, comprising:
in response to a request from a server application, allocating a system-supplied buffer to the server application, wherein the server application is configured to exchange data with a client application running on another computer using a network-based socket, and wherein the system supplied buffer is of a sufficient size to contain the data;
writing the data to the system-supplied buffer;
passing the system-supplied buffer to the network-based socket to allow the server application to continue processing while the data is sent to the client; and
sending, by way of the network-based socket, the data from the system-supplied buffer to the other computer via a network; and
freeing memory consumed by the system supplied buffer.
2. (Original) The method of claim 1, wherein the messages are client-server messages.
3. (Original) The method of claim 1, wherein the data is sent over a sockets streaming protocol.
4. (Cancelled)
5. (Original) The method of claim 1, wherein sending is performed without first copying the data into another buffer.
6. (Previously Presented) The method of claim 1, wherein the writing is performed by the server application.

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7. (Previously Presented) The method of claim 1, further comprising, prior to providing the system-supplied buffer to the server application:
receiving, by a socket, other data from the another computer via the network; and
allocating the system-supplied buffer to contain the other data.
8. (Previously Presented) The method of claim 1, wherein providing the system-supplied buffer to the server application comprises acquiring, by a socket, the system-supplied buffer from memory space not allocated to the server application.
9. (Previously Presented) The method of claim 1, wherein the system-supplied buffer is provided to the server application by a socket in response to a buffer acquisition function call from the server application.
10. (Previously Presented) The method of claim 1, wherein the system-supplied buffer is provided to the server application by a socket after the sockets server application requests client data received over a client connection with the another computer.
11. (Canceled)
12. (Currently Amended) A computer readable medium containing a sockets-based communications program which, when executed by a computer, performs operations for processing messages, the operations comprising:
in response to a request from a server application, allocating a system-supplied buffer to the server application, wherein the server application is configured to exchange data with a client application running on another computer using the communications program, and wherein the system supplied buffer is of a sufficient size to contain the data;

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receiving the system-supplied buffer from the ~~sockets~~ server application, wherein the system-supplied buffer contains data written to the system-supplied buffer by the server application;

sending, by way of the communications program, the data from the system-supplied buffer to the another computer via a network, thereby allowing the server application to continue processing while the data is sent to the client; and
returning the allocated system supplied buffer to the computer.

13. (Original) The computer readable medium of claim 12, wherein the messages are client-server messages.

14. (Cancelled)

15. (Original) The computer readable medium of claim 12, wherein sending is performed without first copying the data into another buffer.

16. (Previously Presented) The computer readable medium of claim 12, wherein the writing is performed by the server application.

17. (Currently Amended) The computer readable medium of claim 12, further comprising, prior to allocating the system-supplied buffer to the ~~sockets~~-server application:

receiving, by the communications program, over a socket, other data from the another computer via the network; and

allocating the system-supplied buffer to contain the other data.

18. (Currently Amended) The computer readable medium of claim 12, wherein providing the system-supplied buffer to the server application comprises acquiring, by a socket, the system-supplied buffer from memory space not owned by the ~~sockets~~ server application.

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19. (Previously Presented) The computer readable medium of claim 12, wherein the system-supplied buffer is provided to the server application by the communication program using a socket in response to a buffer acquisition function call from the server application.

20. (Previously Presented) The computer readable medium of claim 12, wherein the system-supplied buffer is provided to the server application by a socket configured by a receive operation issued from the server application and wherein the system-supplied buffer contains client data from the another computer.

21. (Original) The computer readable medium of claim 20, wherein providing the system-supplied buffer comprises allocating the system-supplied buffer according to a size of the client data.

22. (Original) The computer readable medium of claim 20, wherein the receive operation is configured with a buffer mode parameter indicating to the socket a buffer acquisition method for acquiring system-supplied buffer.

23. (Original) The computer readable medium of claim 22, wherein the receive operation is further configured with a record definition specifying to the socket a format of the client data.

24. (Currently Amended) A computer in a distributed environment, comprising:
a network interface configured to support a network connection with at least one other computer in the distributed environment;
a memory containing contents comprising:
an operating system;
a server application;
a sockets-based communication facility;

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a system-owned memory space from which to allocate system-supplied buffers; and

an application-owned memory space owned by the ~~sockets~~ server application; and

a processor configured by at least a portion of the contents to perform operations for processing client-server messages, the operations comprising:

in response to a request from the server application, allocating a system-supplied buffer to the server application, wherein the server application is configured to exchange data with a client application running on another computer using a network-based socket, and wherein the system supplied buffer is of a sufficient size to contain the data.

25. (Original) The computer of claim 24, wherein the distributed environment is a client-server environment.

26. (Previously Presented) The computer of claim 24, wherein a protocol stack is configured for a sockets streaming protocol.

27. (Original) The computer of claim 24, wherein the processor is configured to send the data without first copying the data into another buffer.

28. (Previously Presented) The computer of claim 24, wherein providing the system-supplied buffer to the server application comprises acquiring, by the socket, the system-supplied buffer from the system-owned memory space.

29. (Previously Presented) The computer of claim 24, wherein the operations performed by the processor further comprise:

writing data into the system-supplied buffer;

returning the system-supplied buffer to the socket-based communication facility;

and

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sending the data from the system-supplied buffer to the at least one other computer.

30. (Previously Presented) The computer of claim 29, wherein the system-supplied buffer is returned to the socket-based communication facility on a send operation and wherein sending comprises detaching the system-supplied buffer from the send operation to allow the server application to continue processing while the data is sent.

31. (Previously Presented) The computer of claim 24, wherein the processor is configured to provide the system-supplied buffer to the server application by the socket in response to a buffer acquisition function call from the server application.

32. (Previously Presented) The computer of claim 24, wherein the socket is configured by a receive operation issued from the server application and configured with a buffer mode parameter indicating to the socket a buffer acquisition method for acquiring system-supplied buffer and wherein the system-supplied buffer contains client data from the at least one other computer.

33. (Original) The computer of claim 32, wherein providing the system-supplied buffer comprises allocating the system-supplied buffer according to a size of the client data.

34. (Original) The computer of claim 32, wherein the receive operation is further configured with a record definition specifying to the socket a format of the client data.